Statutory Reference:

Tax Rate (MCA) – 15-36-304. Privilege and license tax – 82-11-131, Administrative Rules 36.72.1242

Tax Distribution (MCA) – 15-36-331(4), 15-36-332(2&3) (to taxing units)

Date Due – within 60 days after the end of the calendar quarter (15-36-311(1))

Applicable Tax Rate(s):

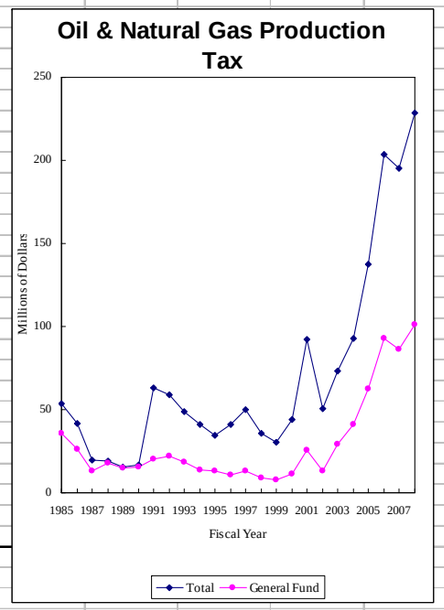
The oil and natural gas production tax has numerous tax rates depending on several factors. These factors include whether the oil or gas is produced from a stripper well, a stripper incentive well, from a well initially drilled before 1999 or after, from a well newly drilled within the last year or 18 months, and whether the interest being taxed is the working interest or the royalty interest. The Board of Oil and Gas Conservation imposes an additional privilege and license (P & L) tax on all oil and natural gas tax rates. Starting October 2006 as set by the Board, the P&L tax rate is 0.09 percent.

Based on this rate, HB 758 enacted by the 2005 legislature allows an additional tax rate of 0.17 percent to generate revenue for local impacts for local governments. The two taxes may not exceed 0.3 percent. The following table shows tax rate percentages for each type of pre-1999 oil and post-1999 oil, excluding the P & L tax and the new Local Impact tax. The quarterly tax rates on stripper production and on incremental production are lower than that for regular production unless the price of West Texas Intermediate averages above $30 for the quarter. Similarly, the quarterly tax rate for stripper well exemption production (1-3 barrels a day) is lower than that for regular production unless the price of West Texas Intermediate averages above $38 for the quarter.

Distribution:

Once the oil and natural gas production taxes have been collected, the revenue is first distributed based on the amounts collected from the P & L and Local Impact taxes. The amounts from the P & L tax is distributed to the: 1) Board of Oil and Gas Conservation; and 2) the Legislative Services Division - $50,000 only in the 2007 biennium. The amounts from the Local Impact tax are distributed to the oil, gas, and coal natural resource state special revenue account. The amounts received by Board and the oil, gas, and coal natural resource account vary based on a sliding tax scale based on the P & L tax set by the Board. Counties producing oil receive the next share of total revenue with each county having its own distribution percentage of total revenue, including the revenue generated by the P & L and Local Impact taxes.

	Fiscal Year	Total Collections Millions	General Fund Collections Millions	GF Percent Change
A	1985	53.667357	35.472434	Not App.
A	1986	41.441086	26.043170	-26.58%
A	1987	19.904239	13.254877	-49.10%
A	1988	18.913097	17.975582	35.61%
A	1989	15.748241	14.959251	-16.78%
A	1990	16.486405	15.567426	4.07%
A	1991	62.879742	20.163269	29.52%
A	1992	58.892324	21.822893	8.23%
A	1993	48.650604	18.676586	-14.42%
A	1994	40.871318	13.403408	-28.23%
A	1995	34.704332	12.963887	-3.28%
A	1996	40.826475	10.665986	-17.73%
A	1997	50.150068	13.283093	24.54%
A	1998	35.709042	9.120152	-31.34%
A	1999	30.446634	7.505617	-17.70%
A	2000	43.772950	11.362741	51.39%
A	2001	92.395790	25.791723	126.99%
A	2002	50.303610	12.902439	-49.97%
A	2003	73.389376	29.086038	125.43%
A	2004	92.676050	41.323718	42.07%
A	2005	137.754331	62.625939	51.55%
A	2006	203.681000	92.563000	47.80%
F	2007	195.430000	86.241000	-6.83%
F	2008	228.334000	101.224000	17.37%
F	2009	228.477000	101.288000	0.06%



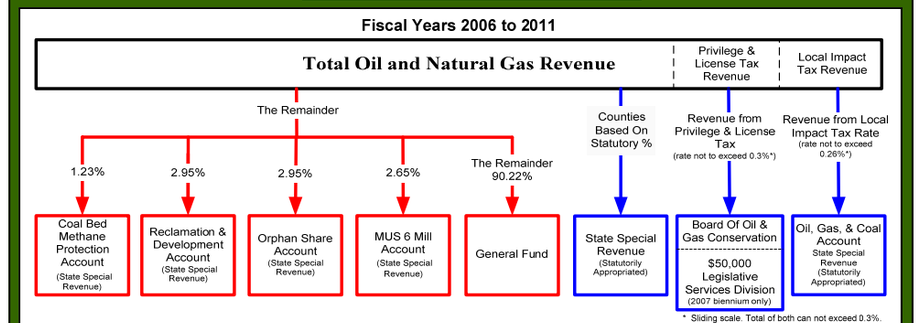
The remainder of the revenue is distributed to other state accounts in the following manner:

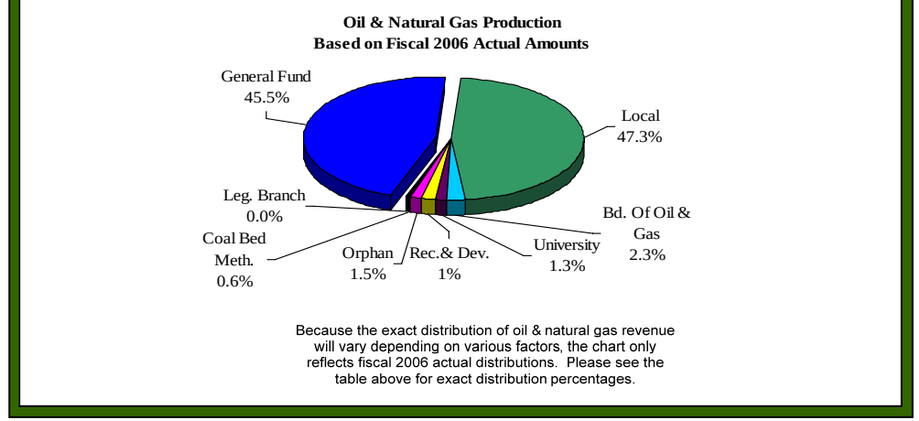
Fiscal 2004 though Fiscal 2011

- Coal bed methane account – 1.23%
- Reclamation and development account – 2.95%
- Orphan share account – 2.95%
- University system 6 mill levy account – 2.65%
- General fund – the remainder (90.22%)

The distributions of county shares and the amount of oil and natural gas production tax revenue deposited in the oil, gas, and coal natural resource account are statutorily appropriated and are based on the statutorily set percentages for each county.

Distribution Methodology:





Because the exact distribution of oil & natural gas revenue will vary depending on various factors, the chart only reflects fiscal 2006 actual distributions. Please see the table above for exact distribution percentages.

Collection Frequency:

Quarterly: The oil and natural gas production tax is due 60 days after the end of the production quarter.

% of Total General Fund Revenue:

FY 2004 – 2.99%
FY 2005 – 4.09%
FY 2006 – 5.42%

Revenue Estimate Methodology:

The estimate for oil and natural gas revenue is derived from estimating the production and price from which value can be obtained. Specific statutory tax rates are used for the types of oil and natural gas that are taxed differently.

Data

Data from the Board of Oil and Gas Conservation are used extensively to isolate monthly historical production of oil and natural gas by field and by individual well. Global Insight provides future estimates of West Texas Intermediate oil and Henry Hub natural gas prices. Production, price, value, and revenue collections, by oil type, are provided on a quarterly basis by the Department of Revenue.

Oil Analysis

Production - The estimate is developed on a quarterly basis with production from the Elm Coulee field separate from all other production. Analysis of the field data indicate that the majority of the increased production is from the relatively new Elm Coulee field in Richland County. Industry personnel state that this field has yet to be fully defined. When it is, fewer new wells will be spudded (drilling initiated).

Oil Analysis (continued)

Existing wells will then follow a production decline curve unique to the characteristics of the field. Fields tapped through horizontal drilling, such as Elm Coulee, tend to be depleted more rapidly than those tapped vertically. Future production from completed wells can be estimated by developing a normalized production decline curve from the producing wells. In doing so, the difficulty of having different starting time for each well can be eliminated by averaging each well's production from a common time point. The result is a curve that represents the average production of wells in the Elm Coulee field by month of production. Production from future wells can be estimated by applying the production curve coefficients to an estimate of future spudded wells. Knowing monthly production from each well and the date it was placed into production are essential for estimating oil tax revenue because tax rates vary based on the length of time a well has been in production.

The dynamics in the timing of when wells enter and fall out of the various tax rates and the changes in production at the various stages is complex, but needs to be modeled to ensure accurate estimates.

Production from all other fields is also estimated on a quarterly basis and by the different taxation types. For each quarter, the estimate is derived by multiplying the same quarter of the previous year by the ratio of the results of a regression analysis for the same quarter of the current and the previous year. The results for each tax type are then summed and the quarterly results are summed by year.

Price – The price for each quarter is estimated by adjusting the Global Insight West Texas Intermediate oil price for that quarter by the ratio of a previous quarter's Montana price to the Global Insight price.

Once production and prices have been estimated, the value can be calculated by the product of the two. The quarterly value of each tax type is then multiplied by the applicable tax rate to obtain the estimate. The sum of the revenue from all tax types for each fiscal year determines the oil production revenue estimate.

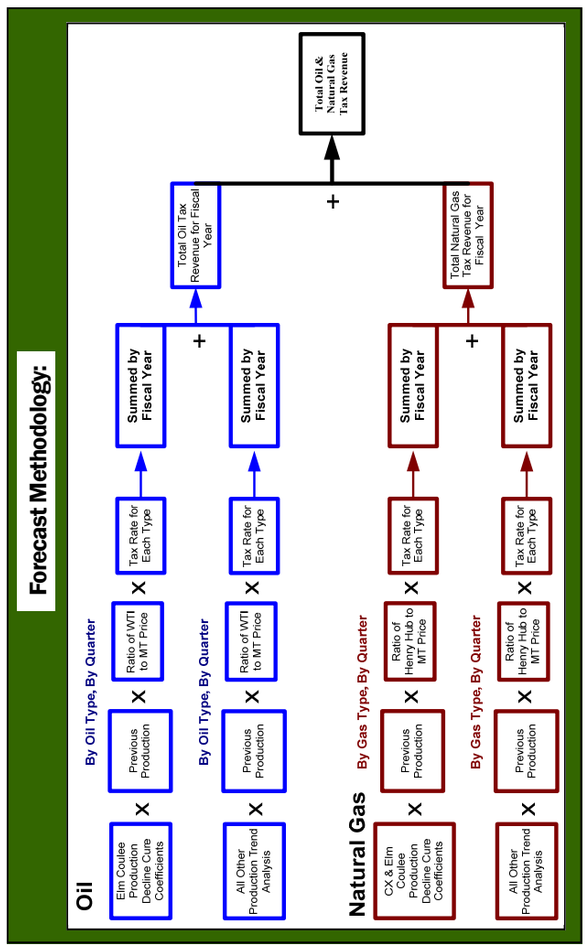
Natural Gas Analysis

Production - The natural gas industry in Montana has also been undergoing major changes. Improved techniques have allowed new fields to be developed and old fields to be more productive. Data from the Board of Oil and Gas Conservation indicate that the majority of increased production is from the relatively new CX field in Big Horn County and the Elm Coulee field in Richland County. Other fields that exhibit increasing production are the Bowdoin and Cedar Creek fields, the second and third largest producing fields, respectively. Since its peak production in 1999, production from Tiger Ridge, the largest producing field, has declined. By excluding production from fields with increasing production, it was found that production from the remaining fields has been decreasing since 2001. Of the fields with increasing production, most is coming from the CX and Elm Coulee fields.

The fact that the CX field has been in production for only seven of the last 20 years, yet ranks sixth in total production out of the major fields that have been producing for the last 20 years, illustrates the importance of this field. A similar analysis to that used for oil can also be used for natural gas from the CX and Elm Coulee fields. As with oil, the development of a normalized production curve from individual wells eliminates the difficulty of having different starting time for each well by averaging each well's production from a common point in time. The result is a curve that represents the average production of wells in the CX and Elm Coulee fields by month of production. With the equation of this curve, future production can be estimated.

Production from all other fields is also estimated on a quarterly basis and by the different taxation types. For each quarter, the estimate is derived by multiplying the same quarter of the previous year by the ratio of the results of a regression analysis for the same quarter of the current and the previous year. The results for each tax type are then summed and the quarterly results are summed by year.

Price - A similar method to that used for oil is used to estimate natural gas prices on a quarterly basis and by tax type of production. However, the Global Insight Henry Hub natural gas future prices are used to drive changes in the Montana price.



The Legislative Fiscal Division

Presents

Taxes in Brief…

Oil and Natural Gas Tax

November 2006 **Fiscal Pocket Guide**

Revenue Description:

The oil and natural gas production tax is imposed on the production of petroleum and natural gas in the state. Gross taxable value of oil and natural gas production is based on the type of well and type of production.

Legislative Fiscal Division
Revenue & Taxation Policy
Room 110, State Capitol
Helena, MT 59620-1711
(406) 444-2986